

Technical Standard – Emergency and Crisis Management

Vedanta Resources Plc

Sustainability Governance System

Technical Standard

Emergency and Crisis Management

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1. INTRODUCTION

The purpose of this Technical Standard is to ensure that there are appropriate emergency response and crisis management planning structures and systems in place, along with sufficient resources available to implement these, so that each Vedanta operation is able respond effectively to crisis and emergency situations. This Standard supports Vedanta’s *Health, Safety and Environmental Policy*.

2. SCOPE

This Technical Standard is mandatory and applies to all Vedanta subsidiaries, operations and managed sites, including new acquisitions, corporate offices and research facilities and to all new and existing employees and contractor employees. This Standard is applicable to the entire operation lifecycle (including exploration and planning, evaluation, operation and closure).

3. DEFINITIONS

Definitions of key terms used in this document are shown in the following table.

Term	Definition
Affected Party	Stakeholders who are affected by the company or operation, both positively and negatively. Within this it is possible to distinguish between those that are directly affected and indirectly affected by the company or operation.
Crisis	A situation or event that is of a magnitude such that it has the potential to impact safety of life, lead to significant environmental damage, impact continuity of business or the reputation of Vedanta across its wider operations. Extraordinary resources are often required to manage the crisis effectively and bring it under control.
Crisis Management	The measures, decisions and application of necessary resources to bring a crisis under control and manage it effectively.
Communication	Communication is exchanging (giving and receiving) information. Communication enables Vedanta to convey the aspects, risks and opportunities of their operations, and to receive information from a range of stakeholder’s concerns, questions and suggestions shared in response.
Emergency	An unplanned occurrence that may result in risks to human health, property, or the environment, and requires an immediate response in order to contain it and/or limit its consequences.
Emergency Response	The decisions and measures taken to contain and/or mitigate the effects of an emergency, to prevent any further impact and to regain control and restore order in its immediate aftermath, and then recover to a normal state. This process is facilitated by an Emergency Response Team and Emergency Preparedness and Response Plans, which should both exist at

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Term	Definition
	the Vedanta Company and operation level.
Emergency Preparedness and Response Plan	A formalised document that sets out the responses and procedures to each potential incident, emergency or crisis situation that has been identified.
Incident	An event or chain of events which caused or could have caused injury, illness, loss of assets or potential or actual damage to relationships or reputation.
Operation(s)	A location or activity that is operated by a Vedanta Company and is part of the Vedanta Group. Locations could include mines, refineries, ports or transportation activities, wind farms, oil and gas development sites, offices and research and development facilities.
Vedanta Company	A subsidiary of Vedanta Group either fully or majority owned that has its own management structure (e.g. Hindustan Zinc Limited, Vedanta Aluminium Limited, Sterlite Industries Limited etc.).

4. PROGRAMME REQUIREMENTS

All Vedanta subsidiary companies and operations are required to follow the requirements listed below with regards to emergency and crisis management.

4.1. General Requirements

- a) Crisis situations shall be managed centrally by Vedanta Group and Vedanta Companies and in accordance with the requirements outlined in Section 4.2. Operations shall also have procedures in place to ensure crisis situations are escalated to Vedanta Companies and Vedanta Group as appropriate.
- b) Emergency situations shall be managed by Vedanta operations and reported to Vedanta Companies and Vedanta Group as appropriate.
- c) Incidents shall be managed at the operation level and reported in accordance with operation, Vedanta Company and Vedanta Group reporting requirements. See also Management Standard MS11 on *Incident Reporting, Escalation and Investigation*.
- d) Emergency Preparedness and Response Plans shall be developed, implemented and maintained at the operation, Company and Group level to deal with incidents, emergencies and crisis situations.

4.2. Crisis Management

In the case of incidents having become emergencies and which, when using professional judgement, are deemed sufficiently serious in nature to require external support then the Vedanta Company CEO or Top Management will “call a crisis”. The Vedanta Company CEO or Top

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Management will do this by activating their own Company Crisis Management team and by calling either the Vedanta Resources CEO, CFO or CSO, whose responsibility it will then be to activate the central crisis management team. Procedures for crisis management should be established as follows:

- a) A crisis management team shall be established at the Vedanta Group level and at each Vedanta Company level.
- b) Members of the crisis management teams and their alternates shall be made aware of their roles and responsibilities, and adequate training provided.
- c) The Group crisis management team shall provide strategic direction and support to operation emergency response teams where a major incident has occurred and is in risk of further escalating.
- d) The crisis management team shall be capable of coordinating the provision of extraordinary resources where it is required to bring an incident under control.
- e) The crisis management team shall be capable of managing global communications strategy. A process should be in place for a call centre to handle incoming calls from government representatives, family members, local, national and international journalists etc.
- f) A defined process shall be in place at the Group and operation level for the escalation of emergencies to a Group-level crisis.

4.3. Identification of Potential Emergency Situations

- a) Each Vedanta operation shall systematically identify all reasonably foreseeable emergency and crisis situations, especially low probability/high consequence events.
- b) The potential impacts of each situation shall be assessed and documented by competent personnel through risk assessment, using methodologies appropriate to the scale and nature of the risk. This will include consideration of the individuals and communities that might be affected by potential emergency situations.
- c) Neighboring activities adjacent to the site shall also be considered, along with potential off-site emergency and crisis situations (such as transport of personnel or hazardous materials).

4.4. Emergency Preparedness and Response Plans

Emergency Preparedness and Response Plans shall be developed and implemented at the Vedanta operation level, and this will usually form the basis of the primary response to an incident, emergency or crisis. In most cases this should be able to effectively manage the emergency through to closure at the site level. However, in the case of a crisis situation where there is a risk of the situation escalating further, further assistance may be required (See Section 4.2).

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- a) Response strategies shall be commensurate with the nature, scale and associated hazards and risks of the operation.
- b) Emergency and crisis management plans shall be established as early as possible.
- c) Stakeholder engagement shall be carried out to ensure that inputs from all relevant stakeholders are incorporated in the identification of risks and development of Emergency Response Plans, including employees, contractors, local emergency services, local government/regulators and local communities.
- d) Roles and responsibilities shall be established and clearly communicated to ensure adequate resourcing for the implementation of Emergency Preparedness and Response Plans.
- e) Emergency Preparedness and Response Plans shall be communicated to all relevant stakeholders in a clear and timely manner.
- f) Arrangements shall also be implemented to ensure conformance to the requirements of relevant *IFC Performance Standards*. The key IFC provisions are summarised as follows:
 - *General EHS Guidelines: Community Health and Safety*. Section 3.7 on Emergency Preparedness and Response sets out the requirement for all projects to have an Emergency Preparedness and Response Plan that is commensurate with the risks of the facility. It sets out the basic elements of the plan and provides further details on the key components: communication systems, emergency resources, training and updating, and business continuity and contingency.

4.5. Development of Emergency Preparedness and Response Plans

Each Vedanta Company/operation shall develop Emergency Preparedness and Response Plans that set out the responses to each potential emergency situation that has been identified and considers escalation to crisis situations.

- a) Each Emergency Preparedness and Response Plan shall set out the following:
 - the procedures in place for identification, notification and escalation of incidents, emergencies and crisis situations;
 - emergency response procedures to be undertaken, including how best to prevent / mitigate illnesses and injuries arising from emergency situations;
 - clearly defined management structures, roles and responsibilities for handling an emergency or crisis situations including required training to be given in advance for each role;
 - the resource requirements, including equipment, human and financial, and how and from where these will be provided;
 - organisation of emergency areas (e.g. assembly points, incident rooms/command centres, medical stations);

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- arrangements for provision of emergency medical treatment and, if necessary, medical evacuation;
 - the communication plan, and communication systems in place including provision for a call centre and the notification of fatalities to the closest relative/family member;
 - a process should be in place to handle incoming calls from government representatives, family members, local, national and international journalists etc.
- b) When developing each plan, the following shall also be considered:
- the findings from the risk identification process;
 - the worst case scenarios identified;
 - the availability of local emergency services, and their response capabilities;
 - experiences and associated learning from previous emergencies (both on-site, elsewhere in Vedanta and in other comparable companies);
 - industry best practice; and
 - legal and other requirements.
- c) Each plan shall be documented and made easily accessible.
- d) Each plan shall be aligned with Vedanta Group Crisis management procedures and business continuity procedures.

4.6. Business Continuity

- a) In addition to bringing an incident, emergency or crisis situation under control, each operation should also consider how business continuity can be most effectively achieved during and in the aftermath of emergency and crisis situations and to allow business management teams to manage the ongoing business after the initial response. As a minimum, each Vedanta operation shall consider creating a backup of critical information held in a secure and separate location.
- b) Operations shall also identify and provide appropriate and sufficient back-up resources, including:
- alternative sources of water, electricity and fuel;
 - alternative facilities from which to operate temporarily;
 - alternative or additional manpower; and
 - alternative supply chain options.

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4.7. Resourcing

- a) Each operation shall identify and document the resources required to ensure the effective implementation of the emergency and crisis management procedures. Resource requirements shall meet the requirements of the Vedanta Management Standard MS01 on *Leadership, Responsibilities and Resources*.
- b) The following resources shall be considered and made available as necessary:
 - trained and competent personnel;
 - equipment and other materials including Personal Protective Equipment (PPE);
 - warning devices;
 - medical services, including personnel trained in first aid, and medical equipment that is appropriate to the type of operation;
 - emergency services support; and
 - emergency funding, along with an appropriate mechanism for delivering funds.
- c) The capacity of external resources, such as local firefighting capacity, shall be assessed, and additional resources acquired and maintained at the operation where external resources are deemed insufficient.
- d) The resources identified shall be maintained and tested on a regular basis, and their adequacy reviewed periodically.

4.8. Roles and Responsibilities

- a) Each operation shall clearly define the roles and responsibilities of all personnel involved in the implementation of Emergency Preparedness and Response Plans.
- b) This should include the following:
 - Employees;
 - Contractors;
 - Emergency services;
 - Legal advisors; and
 - External regulators (where relevant).
- c) All roles and responsibilities should be documented and communicated to the relevant people, with expectations clearly established.

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- d) Flexibility in the make-up of the emergency response teams is required, as it will depend on the exact nature of each emergency, and will not therefore normally be organised as fully predetermined groups. All personnel shall therefore be made aware of the Emergency Preparedness and Response Plans.
- e) A system should be established to ensure there is a duty manager continuously in place. Each duty manager should be adequately trained, and capable of making effective decisions and authorising emergency response actions.
- f) A contact list for all internal and external resources and personnel should be maintained in hard and soft copies and made easily accessible, so they can be easily contacted in the event of an emergency.

4.9. Communication Systems

- a) Adequate alarms and warning devices, along with other forms of communication, shall be maintained to reliably alert workers across the whole site in the event of an emergency.
- b) Independent back-up communications systems shall be provided in case the emergency incident makes the normal communication system inoperable.
- c) Each operation shall ensure that the means are in place to alert the local community/neighboring businesses in the event of an emergency that has the potential to put present a risk.
- d) A process should be in place to communicate emergency information to the media, through a trained and appointed spokesperson who can interact with relevant stakeholders, and through written press releases.
- e) A process and sufficient equipment should be in place to handle incoming calls from government representatives, family members, local, national and international journalists etc.

4.10. Training and emergency response drills

- a) Employees, contractors, visitors and external stakeholders shall all be trained in and understand the Emergency Preparedness and Response Plans, their roles and responsibilities, and the use of emergency response resources. The exact training needs shall be identified based on the requirements, roles and responsibilities, and capabilities of the individual(s) concerned. Competency and training needs shall meet the requirements of the Vedanta management Standard MS06 on *Competency, Training and Awareness*.
- b) Emergency response drills and exercises shall be carried out. These should:
 - Include, desk-based exercises, emergency response exercises that involve the testing of equipment and logistics, and full evacuations;
 - be scheduled regularly, at least once a year for full drills and six monthly for desk-based exercises, although the exact frequency and type of drills shall depend on the nature and scale of the operations, and the associated risks;

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- include the involvement of external emergency response organisations, and other external stakeholders, where appropriate.

4.11. Monitoring, Evaluation and Review

- a) Documented reviews should be carried out after all drills and actual emergency responses to determine the effectiveness of the Emergency Preparedness and Response Plans, with a full debrief to identify what worked well and what aspects require improvement.
- b) Lessons learned following exercises or actual emergency situations/incidents shall be documented, and any gaps in planning and implementation shall be addressed in revised versions of the Emergency Preparedness and Response Plans. Lessons learned shall be shared across Vedanta's operations where appropriate.
- c) All Emergency Preparedness and Response Plans shall be reviewed and updated periodically, at least on an annual basis, to ensure they remain appropriate and relevant. Reviews shall also meet the requirements of the Vedanta Management Standard MS14 on *Management Review and Continual Improvement*.

5. ROLES AND RESPONSIBILITIES

Vedanta Resources, subsidiaries, businesses, operations and sites shall ensure that roles and responsibilities for implementing and complying with this Standard are allocated. Key responsibilities shall be included in job descriptions, procedures and/or other appropriate documentation.

6. COMPLIANCE AND PERFORMANCE

Each Vedanta operation shall ensure that it complies with the requirements of this standard. Performance against meeting the requirements of this Standard shall be assessed periodically, documented and, where required, reported to Vedanta Group. The assessment of performance shall include setting and reporting on key performance indicators (KPIs) where these have been established at Vedanta Group, Company or local level and which meet the requirements as set out in the *Sustainability Data Management Technical Standard*.

The evaluation of performance shall include, as a minimum, confirmation that:

- each operation has identified all reasonably foreseeable emergency incidents;
- an Emergency Preparedness and Response Plan has been developed for each emergency situation identified, and it is commensurate to the level of associated risk;
- a centralised Crisis Management Team has been established to provide strategic advice and support on major incidents at risk of further escalation;

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- the resources required to ensure the effective implementation of the emergency and crisis management procedures have been identified, documented and made available;
- each operation has clearly defined the roles and responsibilities of all personnel, including alternates, involved in the implementation of Emergency Preparedness and Response Plans;
- training has been provided to all relevant personnel, and emergency response drills are carried out and documented on a regular basis.
- all Emergency Preparedness and Response Plans are reviewed and updated periodically.

7. SUPPORTING INFORMATION

Reference	Description
ICMM (International Council of Mining and Metals)	The ICMM, in collaboration with UNEP, have produced a detailed guide on Good Practice in Emergency Preparedness and Response: <ul style="list-style-type: none"> • http://www.icmm.com/page/746/emergency-response
International Finance Corporation EHS Guidelines	The IFC's General EHS Guidelines: Community Health and Safety includes a section on Emergency Preparedness and Response: http://www.ifc.org/ifcext/sustainability.nsf/AttachmentsByTitle/gui_EHS_Guidelines2007_GeneralEHS_3/\$FILE/3+Community+Health+and+Safety.pdf

8. REVIEW

This Technical Standard shall be periodically audited and reviewed to determine its accuracy and relevance with regard to legislation, education, training and technological changes. In all other circumstances, it shall be reviewed no later than 12 months since the previous review.

9. RELATED DOCUMENTATION

A summary of the references and supporting documents relevant to this document is provided in the following table.

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Doc. Ref.	Document name
POL 06	HSE Policy
MS 06	Competency, Training and Awareness
MS 11	Incident Reporting, Escalation and Investigation
MS14	Management Review and Continual Improvement
TS 21	Sustainability Data Management